



Clinical practice

## Intoxication with Qäat, *Catha edulis L.*

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### ABSTRACT

The increasing use of Qäat, *Catha edulis L.* in immigrants from the Horn of Africa to the UK is a matter of concern and may yet become a problem in the UK diaspora. Although it is not illegal in the UK to import, sell, buy, transport or consume, Qäat is a drug of addiction and demotivation. It is legal, in the unprepared plant form, in the UK and the Netherlands, but is a controlled substance and illegal in the USA, Canada, Australia, New Zealand, Denmark, Finland, Germany, Norway, and France. As long ago as 1980 the World Health Organization classified khat as a drug of abuse that can produce mild to moderate psychological dependence. This view continues to be born out and would suggest a re-evaluation of the legal classification of Qäat in the UK and placing it into class C under the Misuse of Drugs Act 1971.

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"Gunmen hijacked an aircraft that was carrying qäat, a narcotic leaf, after a dispute between criminal gangs over the cargo. The men seized the plane in Bosasso, North-east Somalia, and flew it 150 kilometers (90 miles) to Las Qorey". (Reuters) — The Times, October 5 2007.

"A 39-year-old British man has been held on suspicion of trying to smuggle 36lb (16.5 kg) of khat into Greece. He was arrested at Athens Airport after flying in from London" Reuters — The Times, September 17 2008.

### 1. Initial contact

On 27/09/2007 at 18:20 hours C.M., a Somali national, aged 27, was seen at Brixton Police Station with his consent and at the request of the Police to establish the presence of injury and that of fitness to detain and interview. According to the custody record he had been arrested at 16:40 hours on 27/09/2007 on an allegation of shoplifting meat.

The latter, in the author's experience, is almost pathognomonic with abuse of drugs of dependency, alcohol or both. When arrested he was found to have a quantity of khat. Speaking reasonable English, having been in the UK for six years, he said that he was normally fit, well and not on any medication from his GP. He was unemployed and had been so since coming to the UK.

His breath smelled of alcohol and he said that he had also chewed two "sticks of khat"; one stick containing four stalks with

leaves to chew. He was aware that leaf khat was not illegal in the UK and said that khat was permitted in Somalia and Djibouti, formerly French Somaliland, but apparently illegal in Eritrea.

### 2. Case history

He spent about £9.00 a week on khat, buying three bundles of "100 to 150 sticks" and had drunk some beers. He denied the use of any other drugs, including any Class A.

When asked about his use of khat, he told me that there was a Somali saying that:

*"Children play, women work and the men chew khat".*

On examination the following clinical signs and symptoms were noted. His mood was rather excitable although probably not caused by the disinhibition from alcohol and this was attributed to the effects of the khat. His pulse rate was slightly raised at 84 bpm, blood pressure and pupils normal and he appeared uninjured. He denied any injuries and none were reported. He displayed no evidence of mental disorder and did not tell me of any treatment or hospitalisation for a mental disorder.

He was deemed fit to be detained at the time of the examination, but due to the mild effect of khat he should not be interviewed until two hours had passed. He was put on 30-minute checks.

### 3. Discussion

Khat or Qäat (pronounced chat or jat in Ethiopia) resembles in most parts a laurel bush and is a shrub, *Catha edulis L.* The profits from growing it are huge and far greater than those of growing coffee, resulting in large plantations of mature and well-established

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coffee plants being grubbed up and replanted with khat. In Yemen its cultivation now consumes 40% of this rocky and arid country's fresh water supply as it is used to irrigate the plantations, which are also increasing by between 10% to 15% pa.

The new diasporas of Yemenis, Somalis, Ethiopians and others arriving from the Horn of Africa in the UK and Europe have created this new demand and they have the money to pay for it. More so in the UK, where interestingly it is not illegal, although it is much prized in the United Arab Emirates where, according to their imams, it is not *haram* or forbidden in the Koran. Saudi imams would most probably disagree.

Khat is grown on a commercial scale in Kenya, Ethiopia (Fig. 1) and Somalia and flown in daily to the UK, either on cargo flights or on regular passenger flights as cargo. The active ingredients of khat are cathine and cathinone which are phenylalkylamines, with very similar effects to that of amphetamine.<sup>1</sup>

The two alkaloids are controlled substances; however, it is not illegal to possess khat in its plant form in the UK. It is freely sold, though not overtly displayed, at ethnic green grocers in South West London. It is usually done up as bundles of about ¼ kilo and in normal amount has a stimulant effect.

In 1980 the World Health Organisation classified khat as a drug of abuse that can produce mild to moderate psychological dependence. In terms of classification it is legal in UK<sup>2</sup> and the Netherlands, but is a controlled substance and illegal in the USA, Canada, Australia, New Zealand, Denmark, Finland, Germany, Norway, France, Sweden and Switzerland.

In the UK, as mentioned, it has no schedule as it is not illegal and has no known therapeutic use.<sup>3</sup> In terms of drug abuse it has no known adulterants or paraphernalia other than a good set of teeth and an acquired, rather bitter, taste. The young leaves are chewed or drunk as an infusion as a tea. The latter act does, however, make it illegal as it cannot be extracted in anyway, including the seemingly simple act of making of an infusion or tea.

As a European, requests for it were not welcomed and it took some perseverance to find a source. In Streatham it was eventually purchased as two different bundles wrapped in a banana leaf at the "Nura" Somali Café on Glendale Road, SW16.

The £3.00 bundle of Kenyan khat, (Figs. 2–4) had 16 sub-bundles each with three or more usually four single sticks. These have the



Kenyan khat £3.00 bundle as purchased – 250gm

Fig 2. Kenyan khat £3.00 bundle as purchased – 250 gm.

appearance of thin sticks of rhubarb, the lower parts of the stalks being pink in colour with small elliptical leaves at the top with a fine serrated edge and the reticulate venation of the genus *pinnatifida*.

The street price in Streatham is £2.50 to £3.00 per bundle with each bundle being made up of 48–64 sticks. The "better" Ethiopian variety (Figs. 5 and 6), £1.00 more expensive, seemed fresher and was better wrapped; it certainly had more leaves. Chewing the leaves gives a very unpleasant, bitter taste as would be expected of an alkaloid and very similar in taste of the coca leaves, *Erythroxylum coca*, used by locals in the Andes as a treatment for *puña*, mountain or altitude sickness. Both numb the tongue and lips even after a surprisingly brief time.

Dire Dawa, Aveyde and Harar are the centres of production in Ethiopia. Local price is \$1.20 per bunch (60p), \$3.60 (£1.80) in Addis Ababa and far more in the Emirates.



Ethiopian farmer with *Catha edulis* bush

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Fig. 1. Ethiopian farmer with *Catha edulis* bush.



Opened bundle with the 16 sub-bundles. Total wt. = 180 gm

Fig 3. Opened bundle with the 16 sub-bundles. Total wt. = 180 gm.



4 stick sub-bundle detail

**Fig 4.** 4 stick sub-bundle detail.

Khat has to be fresh to be effective and so is all expensively air-freighted to the UK and the flights with khat as cargo to Yemen, Oman and the Emirates are more reliable and more likely to depart on time than the passenger flights as cathine and cainone potency, and thus price, is lost with time, the leaves soon going black and shrivelling.

There are however other risks in taking such flight, as was highlighted by the Reuters report quoted at the beginning of this article.

The main active component, Cathinone, is a stimulant, the effects being euphoria, an increased alertness, anxiety, insomnia and lack of appetite. Heavy khat abuse may give manic episodes, paranoia and schizophrenic-type psychoses, which usually resolve within weeks of stopping the abuse. There are no withdrawal symptoms as such, but lassitude, depression and increased sleepiness may result when khat abuse stops.



Ethiopian khat bundle £4.00 weight 250gm. Contains 13 sticks. Ruler 12" or 30.3cm

**Fig 5.** Ethiopian khat bundle £4.00 weight 250 gm. Contains 13 sticks. Ruler 12" or 30.3 cm.



Leaves of fresh Ethiopian khat, with scale.  
Total weight of sticks = 200gm

**Fig 6.** Leaves of fresh Ethiopian khat, with scale. Total weight of sticks = 200 gm.

#### 4. Historical and literary aspects of khat

Sir Richard Burton (1821–1890), the explorer, when journeying in 1854 to Ethiopia, and as ever the inquisitive *faranji*, wrote of khat chewing when he was in Harar.<sup>4</sup> Jean Arthur Rimbaud (1854–1891), the great French poet lived in Harar in the 1880's.

His bizarre, almost hallucinatory poems, are now thought to have some foundation in his abuse of khat. These poems were published as "Les Illuminations" in 1866 by Verlaine, who had believed Rimbaud to be dead. The poems took Paris by storm and a further series of poems: "Reliquaire" was published in 1891. There are two houses in Harar that today's travellers are shown and are said to be his, neither are as the actual house was destroyed.<sup>5</sup> At this juncture one is reminded of De Quincy's "Confessions of an Opium eater" and of Coleridge's epic poem "Kubla Khan", of which the latter was said to have been written under the influence of opiates. Literary gems from the hundreds of opiate abusers in the UK will be rare, possibly because theirs is a use more anaesthetic, rather than aesthetic or creative.

#### 5. Other plant alkaloids potentially available in the UK

Another plant intoxicant, though from the Pacific Islands, is Kava from the root of the *Piper methysticum L* plant. It has no known therapeutic use. Although previously available in the UK, it has been banned since January 2003 following reports of it having been implicated in liver complications. It is a stimulant also, but a little more palatable. It is ground up in a mortar and pestle with water and is then drunk. It has a peppery taste and is mildly narcotic again numbing the lips and tongue.<sup>6</sup>

In the Indian sub-continent including Nepal, Tibet, Sikkim and Bhutan, betel chewing is endemic with the bright red, though not haemoptic, splashes on pavements as evidence of this. A common mistake is to refer to "betel-nut chewing".<sup>7</sup> Betel is actually a leaf of the *Piper betel L.* (cp Kava) and the areca nut from the palm tree *Areca catechu L.*

A small piece of the nut, some powdered sea shell as a source of lime is wrapped in a piece of betel leaf is called a *paan*.<sup>8</sup> The lime helps release the psychoactive alkaloids, arecaidine and guacine, from the areca nuts, whereas the betel leaf contains

a number of terpenoids and a type of aromatic oil. Areca nut increases the work capacity, causes a feeling of bodily heat and heightens awareness,<sup>9</sup> but its use does not appear that common in the UK, but this is rising as evidenced by the increasing street paan stains.

In countries and communities where betel is consumed extensively, there are vastly higher levels of oral cancer and in Asian countries where it is consumed, oral cancer forms up to 50% of malignant cancers, though the carcinogen is thought to be the lime.

It is not a controlled substance in the UK or anywhere else in the world.

The use of khat in the north-east African diaspora in Lambeth appears quite wide spread. Since its use is not illegal, they have no reason to deny it, but seem surprised that when asked about their use of it and then intrigued that a European should know a great deal about it.

The encouragement by the government of ethnic diversity in the United Kingdom is one matter, however, as a personal opinion, khat should not be legal. Apart from the alkaloid content and the general disincentive effect that khat appears to result in, the chewing of plant substances, which are then stored in the cheek may be potentially carcinogenic.

C.M. had been arrested for shoplifting. From experience the majority of all shoplifters are drugs users, often Class A.<sup>10</sup> C.M. was unemployed, a khat user and an alcohol abuser. His shoplifting thus supports two habits. He has no insight into his situation and thus no incentive or understanding to be able to change it for the better. To be honest he is clinically indifferent. The likelihood of his being in any way concerned when told that he is at risk from oral cancer is utterly remote and thus totally academic.

Sadly he is likely to remain unemployed and at the age of 27 has probably already "retired". There is, it would seem, no incentive for

him change this social status; his clinical *condition humaine* will not benefit, any more than will his pharmacological *condition humaine*. It is likely that it will not be that long before he is introduced to Class A drugs, a third habituation, if he has not yet already tried them. He will most probably be seen by an FME again and again...

### **Conflict of interest statement**

No conflict of interest.

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### **Ethical approval**

None required.

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